



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,443	12/30/1999	RAJEEV K. NALAWADI	042390.P6349	7862

7590 02/12/2004

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP  
12400 WILSHIRE BOULEVARD SEVENTH FLOOR  
LOS ANGELES, CA 90025

EXAMINER
----------

VO, TIM T

ART UNIT	PAPER NUMBER
----------	--------------

2112

DATE MAILED: 02/12/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

PPG

<b>Office Action Summary</b>	Application No. 09/476,443	Applicant(s) NALAWADI, RAJEEV K.	
	Examiner Tim T. Vo	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 11-13 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-9, 11-13 and 15 are presented for examination.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Young U.S Patent No. 5,619,706 in view of Brown Patent number 5,325,529. Young discloses a method and system that includes the use of two different and separate interrupt controllers which receive two different interrupt requests that transfer initializing data and, when needed, re-routes an interrupt request from one controller to other interrupt controller in order for the second interrupt controller to service the first type of interrupt (column 7, claim 1). The system also includes a memory subsystem that stores information and instructions for the processors to manage interrupts in the system (column 4, line 45).

Young does not expressly teach initializing interrupt controllers. However, initializing interrupt controllers in computer system is well known and expected in the art. Brown teaches initializing interrupt controllers at booting (see column 1 lines 21-26). It would have been obvious to include initializing interrupt controllers to Young for resetting interrupt priorities purpose.

Art Unit: 2112

3. Claims 2-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young and Brown as applied to claims 1,5,15 above, in view of Tavallaei et al. U.S. Patent No. 5,987,538. Referring to claims 2, 3, 6, 7, Young discloses a method and system that includes the use of two different and separate interrupt controllers which receive two different interrupt requests that transfer initializing data and, when needed, re-routes an interrupt request from one controller to other interrupt controller in order for the second interrupt controller to service the first type of interrupt but does not disclose configuring a system management interrupt (SMI) to recognize the initializing data of a first interrupt type. However, Tavallaei et al. teaches the use of programmable data entries, which provide information necessary to format an interrupt message or request (column 7, line 56). The entries are made up of vectors such as a vector field, a delivery mode field, destination field and a field for other purposes or otherwise reserved (column 8, 4<sup>th</sup> paragraph). Tavallaei also teaches the generation of interrupt messages such as a SMI (column 4, line 65). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Young and Brown's invention to include such programmable data entries in the interrupt requests transferred to the interrupt controllers in order to include initializing data in the fields of the entry such as configuration instructions for the controllers and for the generation of SMIs.

Referring to claims 4, 8, Young further teaches a method and system that includes a first interrupt controller (circuit) which includes a programmable interrupt controller (PIC) and an advanced interrupt controller (APIC)(column 8, claim 8). It is well

known that an 82C59 controller is a programmable interrupt controller and can be used in such a system.

***Examiner's Statement of Reasons for Allowance***

4. Claims 9, 11-13 are allowable over the prior of records.
5. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 9, 11-13 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts. Prior art fails to teach instructions for sending interrupt controller initializing data to the first interrupt controller to initialize the first interrupt controller and instructions for re-routing interrupt controller initializing data to the second interrupt controller to initialize the second interrupt controller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim T. Vo whose telephone number is 703-308-5862. The examiner can normally be reached on 7:30-5:00.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tim T. Vo  
Primary Examiner  
Art Unit 2112

2/8/04